the child had been weaned from the maternal breast. When the case was first seen by the author there was already hypertrophy of the spleen and liver, while among the gland groups the inguinal were the only ones visibly affected.

Examination of the blood then showed a leucocytosis of moderate intensity. A complete examination of the blood, made a few days before the report, gave the number of red corpuscles 2,300,000; white corpuscles 250,000, or a proportion of 1 to 9; hæmoglobin 40 per cent. (Fischl). There was consequently considerable leucocytosis. Histologically there was a predominance of monochromatophilic leucocytes with large nuclei, a poikilocytosis, and a great number of erythroblasts of normal dimensions and with nuclei in a state of division.

Passing in review the writings of von Jaksch and other German writers, as well as those of Hayem and Luzet of the French school, the author shows that the case under discussion may be considered equally well as an example of pseudo-leukæmia or as a true leukæmia. The hypertrophy of the liver, the generalized lymphadenitis, proceeding by recurring attacks, and the rapid course are in favor of true leukæmia; while the histological elements of the blood, according to certain writers, would be justly characteristic of that affection. On the other hand, the enormous swelling of the spleen compared with the moderate hypertrophy of the liver and the particular form of adenopathy would suggest a pseudo-leukæmia, a view that would be confirmed by the richness of the blood in erythroblasts and its poverty in eosinophilic elements. The question could probably only be solved at the autopsy, which would determine the presence or absence of the characteristic lesions of the organs and bone-marrow associated with true leukæmia. The author thinks, finally, that the anæmia infantum pseudo-leukæmica of v. Jaksch is not an autonomous disease but a result of a number of debilitating troubles.

This opinion was supported in the discussion by Epstein, who cited a number of cases in which this pseudo-leukæmia was secondary to other morbid states. He has seen it develop in nurslings following chronic septicæmias, attended with the formation of a single or of multiple abscesses, sometimes six to eight months after the primary accident; and in these cases, if the history had not been known, the diagnosis of primary anæmia pseudoleukæmica would have been made. In other cases this anæmia is observed following a latent tuberculosis of the bronchial and mediastinal glands; after infections of intestinal origin; as a result of hereditary syphilis, the manifestations of which had disappeared after a few weeks; after grave gastro-intestinal troubles, and after rhachitis. Finally, Epstein has observed a series of cases in which malaria could be incriminated as the exciting factor.

A Case of Myxœdema in a Child.

M. Imerwol, of Jassy (Transactions of the Eleventh International Medical Congress, Section of Pediatrics, *La Semaine Médicale*, April 18, 1894, p. 187), reported the case of child four years of age who presented all the clinical symptoms of myxœdema with complete idiocy. Injections of thyroid extract continued for twenty days caused a notable amelioration, as evidenced by the diminution of tumefaction of the skin; the psychic state also improved.

Unfortunately, the child was attacked with erysipelas and died. At the autopsy there was found complete absence of the thyroid. The brain was well developed and weighed 950 grammes. Histological examination of the skin showed that the infiltrating material was fatty, not mucous, the condition being described by the author as a veritable lipomatosis of the skin.

This case adds another to the list of autopsies on such cases recorded by Sick and Nauwerke, Bourneville and Bricon, Bourneville and Pilliet, and Marfan and Guinon (see this department, April, 1894), and emphasizes the plea made by the last-named observers that the erroneous term myxœdema should be discarded in favor of Charcot's—*cachexie pachydermique.*

THE STUMP OF THE UMBILICAL CORD IN THE NEWBORN.

DOKTOR (*Archiv. f. Gynäk.*, 1894, Part 3) mentions three factors which render the stump of the cord an easy avenue for infection. First, the wound involves not only the skin, subcutaneous tissue, and muscular layers of the abdominal parietes, but also includes the peritoneum; secondly, three large vessels are exposed in the stump; and, finally, a quantity of dead tissue must remain in the wound for some considerable time. The author compares the Whartonian jelly to the gelatin employed for bacteriological cultures. When the skin, as sometimes happens, extends some distance along the cord in the form of a tongue-like process, healing is slow. Extension of the attachment of the amnion beyond its normal limit usually results in decided weakening of the umbilical region. The so-called fungus of the umbilicus results from the deeper tissues invading the Whartonian groove and growing upward into the centre of the cord, remaining as a conical projection when the funis separates. Among 462 newborn children observed, an elevation of temperature was noted in 107, and in 42 of these the author was able to trace an infection from the umbilical wound. He states that the original dressing of the cord should not be disturbed, and thinks it better to omit the daily bath for a short time rather than disturb this dressing.

THE OBLITERATION OF THE DUCTUS ARTERIOSUS AT BIRTH.

STRASSMANN, at a meeting of the Berliner medicinische Gesellschaft, April 11th (*La Semaine Médicale,* April 18, 1894, p. 185), questioned the usual explanation of the mechanism of the obliteration of the ductus arteriosus. He states that thrombosis of this canal is very rarely found, and that in all cases in which it is found it is pathological; in the second place, it has never been demonstrated that this canal can contract or bend at the moment of the first respiration to the point of obliterating its lumen.

The author suggests the following explanation as the most rational to his mind: At the moment when respiration is established blood-pressure diminishes in the right heart and pulmonary artery, while it is increased in the left heart and aorta. As a result of this the aortic orifice of the ductus arteriosus receives less blood and is submitted to a mechanical pressure which determines its obliteration. It is known that obliteration does not occur when the respiration is not sufficiently established and the lung remains uninflated. Moreover, the same result obtains when, following a premature respiration, the arterial canal is too distended to permit of its obliteration, and a condition of asphyxia is induced calling for bloodletting. Obliteration also does not occur when the relations of blood-pressure in the great vessels are transposed, as is observed in cases of malformation of the heart or stenosis of the pulmonary artery or aorta.

All these considerations prove that the aortic orifice of the ductus arteriosus closes mechanically, a fact which permits us to understand its reopening in certain determinate conditions.

To demonstrate his theory the author injected the vessels of a number of fœtuses with a coagulable liquid. While with the pressure of 100 mm. of mercury the arterial canal could not be injected by way of the aorta, this could be done with great ease, even eight days after birth, by injecting by way of the pulmonary artery. To inject by way of the aorta it was necessary that the fœtus should not be completely developed (not later than the beginning of the eighth month with the human fœtus), or that the arterial duct should have a certain width from premature respiration, or that the pressure in the aorta be very high.

A Case of Melæna Neonatorum.

Schütze (*Centralblatt f. Gynäkol.*, 1894, No. 9) reports a case in a strong male infant born at term of a mother sixteen years of age. The cord was twisted once around the neck but not tightly enough to cause an asphyxia. The left parietal bone was imperfectly ossified, one part crackling like parchment when pressed. Forty-four hours after birth the child passed blood freely from the bowel, but the hemorrhage was checked by cold gruel enemata containing a few minims of perchloride of iron. Twenty-four hours later the child was very anæmic and cold, though no more blood had been passed, and the abdomen was not swollen. A few hours later blood was again passed at stool and was also vomited. Collapse ended in death an hour later. The umbilicus and its vessels were found healthy, but the mouth was full of dark tea-colored blood, as were also the pharynx, œsophagus, trachea, bronchi and larger tubes, the stomach, the lower part of the ileum, and the large intestine. No ulceration of the intestinal mucous membrane could be detected; the duodenum, jejunum, and upper part of the ileum were empty. The lungs were very emphysematous. There were ecchymoses of the dura mater.

Periods of Isolation for Contagious Diseases of Childhood.

In the course of a report upon this subject, Ollivier (*Gazette Médicale de Strasbourg*, 1894, No. 2, p. 17) makes the following rules:

For scarlatina, variola, varioloid, and diphtheria, the period of isolation, before the child is allowed to return to school, should be forty days, counting from the first day of invasion.

For measles and varicella sixteen days will be sufficient.

For pertussis isolation should be prolonged to three weeks after complete cessation of the characteristic kinks.

For mumps, ten days after the disappearance of the local symptoms.

Nasal, buccal, and pharyngeal irrigations with antiseptic solutions should be employed, and soap bath and rubbing of the entire surface and scalp should be a necessary preparation before returning to school.

PATHOLOGY AND BACTERIOLOGY.

UNDER THE CHARGE OF

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FEVER.

WITH the development of our knowledge of the acute infectious diseases, has arisen the theory that the fever occurring as a part of their clinical picture is the result of the action on the body of certain diffusible products of the bacteria which are their cause. With a view to adding definiteness to this theory, CENTANNI has undertaken an exhaustive study of the fever of the infectious diseases, his investigation being directed to the determination of the following points: 1. What are the agents which cause the fever in these diseases? 2. What is the mechanism by which they act? 3. What therapeutic deductions are possible from the facts developed? The work is not yet completed, but a number of facts bearing upon the first question have been discovered, and form the basis of a preliminary paper upon the Fever-producing Poison of the Bacteria.—*Deutsch. med. Woch.*, 1894, Nos. 7 and 8.

The investigation extended to seventeen pathogenic species, seven non-pathogenic, and to cultures made from air, water, putrefying animal matter, and urine, without any attempt to separate or identify the several species. From cultures of these germs, *devoid of peptone*, Centanni obtained, by repeated precipitation with alcohol and dialysis, a substance whose chemical properties are quite distinct from those of the bacterial poisons heretofore described (ptomaïnes, enzymes, toxalbumins), and which, when injected into animals, causes fever, prostration, loss of flesh, and finally death, if continued. This substance, which Centanni believed to be the same in all species of bacteria, is designated by him "pyrotoxina bacterica." It is believed to be in some way derived from the protoplasm of the germs, or to be elaborated by it, and its production is thought to be a quality of all bacteria. He is led to believe that the fever accompanying the acute infectious diseases in man is due to an intoxication of the system by this poison, and explains the irregular course of the fever in the different diseases by the theory that the poison depends for its elaboration upon variable conditions, and that it is these conditions which are different in the various diseases and at different times in the same disease, not the poison.

PYOGENIC MICROCOCCI IN THE BLOOD IN PHTHISIS.

THE large number of bacteria, other than the tubercle bacilli, usually present in the sputum of phthisical patients in whom breaking-down of the lung tissue is associated with more or less fever, and the fact that these bacteria have been shown by cultures to belong in most cases to the group called "pyogenic," have suggested that much of the consolidation of the lung, and, per-